Algal bloom wildlife post-mortem report

Government of South Australia
Department for Environment and Water

Species – Bottlenose dolphin

Date collected – 13 August 2025

Location – Henley Beach

History relating to the animal

One adult female bottlenose dolphin (*Tursiops aduncus*) was found dead at Henley Beach on 13 August 2025.

Clinical examination

The animal was already dead and so could not be examined prior to death. There were no apparent external injuries.

Necropsy

The necropsy (looking at the whole body) revealed that the dolphin was in good body condition, weighed 70kg, and was 2.02m in length. There was minimum post-mortem autolytic change (decomposing after death). The subcutaneous (under the skin) fat was 20mm on the ventral abdomen (the underside of the animal) and 20mm under the dorsal fin (fin in the middle of the back). The right lung was red and consolidated (indicating it was filled with fluid, pus, or other material, making the lung tissue dense and firm rather than soft and spongy). The right pleural cavity (space within the chest where the lungs are) was filled with approximately 2 litres of translucent (clear) yellow fluid with abundant fibrin strands (protein that forms with inflammation or part of blood clot formation). The stomach and intestines did not contain any food material.

Samples were collected to test for avian influenza, *Cetacean morbillivirus*, and *Mycobacterium tuberculosis* (*MTb*) complex organisms. Tissues were collected for histopathology (looking at tissues under the microscope for more detailed information) and testing for brevetoxins and other algal biotoxins (a possibility due to the algal bloom).

Histopathology

Samples from every major body system were examined under the microscope. Examination of the lung revealed a severe, chronic (long-term) pyogranulomatous (inflammation with pus and nodules), necrotising bronchopneumonia (infection of the lungs and airways with cell death) and pleuritis (inflammation of the lining around the lungs) with bacteria found within the affected tissues.

There was moderate pancreatitis (inflammation of the pancreas), mild subacute to chronic pyogranulomatous necrotising hepatitis (inflammation of the liver with pus and cell death), mild splenitis (inflammation of the spleen) with lymphoid necrosis (death of lymphoid tissue). There

was a cestode (worm) seen within a gastric gland (gland within the stomach that produces acid).

Bacteriology

Following the histopathology findings, the right lung was cultured to try to identify the visible bacteria. A heavy growth of *Streptococcus iniae* was cultured from lung samples.

Mycobacterium sp. and acid-fast bacilli were not seen and polymerase chain reaction (PCR) testing for *MTb* complex organisms were negative.

Virology

Testing results for avian influenza and *Cetacean morbillivirus* were negative.

Brevetoxins

No samples were above limits of reporting.

Other algal biotoxins

No samples were above limits of reporting.

Summary

One adult female bottlenose dolphin found dead. Laboratory examination found a severe bacterial infection (*Streptococcus iniae*) in the lungs, airways and chest, which likely contributed to the death of this dolphin. *Streptococcus iniae* is a known pathogen of marine mammals and fish, however predisposing factors for infection and disease due to *S. iniae* in wild dolphins is unknown.

Inflammation and cell death was found in many other organs, likely as a result of the infection spreading via the bloodstream (bacteraemia) and associated endotoxaemia (bacterial toxins within the bloodstream). The cause for the chronic pancreatitis was not evident, and did not appear to affect the animal as it was in moderate body condition.

The gastric cestode (stomach worm) is an incidental finding. The species of the worm could not be identified, however *Tetraphillydea* cestodes are reported in healthy dolphins.

Testing for avian influenza, tuberculosis (*Mycobacterium tuberculosis* complex organisms) and *Cetacean morbillivirus* was negative. Brevetoxins and other algal biotoxins were also not detected.

Outlook

PATH RESULTS: DOLPHIN COMMON, (Ma) [redacted]

From [redacted]
Date Thu 14/08/2025 12:51 PM
To [redacted]

[redacted]

[redacted]

Tested on 13/08/25
Reported on 14/08/25 13:00
Referred on 13/08/25 **by:** [redacted]

Owner:
DOLPHIN COMMON

HENLEY BEACH 5022

Animal/s:
Marine Mammal

DOB: N/A

Collected: 13/08/25 07:00 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received

NECROPSY REPORT
ADDITIONAL COMMENTS 14/8/2025

CLINICAL HISTORY
Please refer to the clinical history on the request form. A brief summary of the clinical history;

The dolphin was collected at Henley Beach on 13/8/2025. The body was fresh (< 24 hours since the animal died). The animal did not appear to have any injuries such as boat strike / jet ski strike

SAMPLES SUBMITTED
One dead adult female bottlenose dolphin, Tursiops aduncus

NECROPSY FINDINGS
The animal is in good body condition, weighs 70kg and there are minimal post mortem autolytic changes. The animal is 2.02 m in length. The subcutaneous adipose fat over the ventral abdomen is 20mm and the subcutaneous fat under the dorsal fin is also 20mm.

The right lung is diffusely red, consolidated, firm. The right pleural cavity is filled with approximately 2 litres of translucent yellow fluid with abundant fibrin strands.

The stomach contains scant ingesta. The intestines contain scant pasty brown ingesta.

GROSS SUMMARY
Unilateral fibrinous bronchopneumonia and pleuritis

SAMPLES COLLECTED & TESTING
Oropharyngeal swab in virus transport medium, liver, spleen, heart, lung, kidney, brain will be tested at [redacted] and at ACDP for Avian influenza.

Brain and lung will be tested at ACDP for cetacean morbillivirus. This testing is approved by [redacted] (CVO SA).

Mycobacterium sp. testing (including Mycobacterium tuberculosis complex) at ACDP, in light of the bronchopneumonia is recommended and has been approved by [redacted] and PIRSA.

[redacted]

Tested on 13/08/25
Reported on 14/08/25 13:00
Referred on 13/08/25 **by:**

[redacted]

[redacted]

Owner:
DOLPHIN COMMON

HENLEY BEACH 5022

Animal/s:
Marine Mammal

DOB: N/A

Collected: 13/08/25 07:00 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received
Formalin fixed tissues are stored.

Microbiology on lung, histopathology on lung / all fixed tissues is recommended.

Fresh liver, spleen, heart, lung, kidney, brain (100g each) are stored frozen at -80 degrees Celsius, if biotoxin and brevetoxin testing is required.

Nasal, oral, anal, genital dry swabs and a skin biopsy are stored at -80 Degrees Celsius [redacted] Please note, due to the risk of Mycobacterium sp. we recommend that the samples are stored at our laboratory until all Mycobacterium sp. testing is completed. In addition, it is suggested that the samples, when they are released are only handled in a biological safety cabinet , preferably in a Physical containment 2 laboratory(ANZ standards biological safety 2243: part 3 (2022).

COMMENTS
Fibrinous bronchopneumonia and pleuritis contributed to the death of this dolphin. Differential diagnoses include Pastuerella sp., Mycobacterium sp., Actinomyces sp., Streptococcus sp., Nocardia sp.. Intercurrent cetacean morbillivirus infection is also a differential diagnosis.

Based on these differential diagnoses, I have recommended Mycobacterium sp. testing along with cetacean morbillivirus testing at ACDP. These tests are approved by [redacted] CVO SA and PIRSA and will be completed at ACDP.

Avian influenza will be tested at ACDP.

14/8/2025
Microbiological culture for endemic bacterial pathogens and histopathology will be done on the lung at [redacted] as requested.

[redacted]

[redacted]

[redacted]

Tested on 13/08/25
Reported on 14/08/25 13:00
Referred on 13/08/25 **by:** [redacted]

Owner:
DOLPHIN COMMON

HENLEY BEACH 5022

Animal/s:
Marine Mammal

DOB: N/A

Collected: 13/08/25 07:00 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received

Specialist Veterinary Anatomic Pathologist
[redacted]

Validated by [redacted]

Outlook

PATH RESULTS: DOLPHIN COMMON, (Ma) [redacted]

From [redacted]
Date Fri 22/08/2025 1:00 PM
To [redacted]

[redacted]

[redacted]

Tested on 13/08/25
Reported on 22/08/25 13:30
Referred on 13/08/25 **by:** [redacted]

Owner:
DOLPHIN COMMON

HENLEY BEACH 5022

Animal/s:
Marine Mammal

DOB: N/A

Collected: 13/08/25 07:00 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received

HISTOPATHOLOGY FROM NECROPSY

REF: [redacted]
ADDITIONAL FINDINGS 22/8/2025

CLINICAL HISTORY

Please refer to the clinical history on the request form. A brief summary of the clinical history;

The dolphin was collected at Henley Beach on 13/8/2025. The body was fresh (< 24 hours since the animal died). The animal did not appear to have any injuries such as boat strike / jet ski strike

One dead adult female bottlenose dolphin, Tursiops aduncus, was submitted to the laboratory.

MACROSCOPY
A: Right lung; Ae GK

MICROSCOPY
Right lung: Diffusely alveolar spaces are markedly expanded by large numbers of viable and degenerate neutrophils, macrophages and less lymphocytes and plasma cells admixed with haemorrhage, oedema, fibrin. There is loss of type I alveolar epithelial cells lining alveoli. Within the lumen of alveoli there are low numbers of gram-positive coccoid bacteria within extracellular spaces and rare coccoid bacteria within the cytoplasm of neutrophils and macrophages. Multifocally the alveolar interstitium is expanded by moderate numbers of lymphocytes, plasma cells, macrophages and fewer neutrophils, oedema and low numbers of fibroblasts. The lumen of bronchi and bronchioles are expanded by large numbers of fibrin degenerate neutrophils, macrophages, fibrin and oedema and multifocally there is loss of bronchiolar and bronchial epithelium. The interstitium surrounding bronchi and bronchioles are expanded by clear spaces (oedema) and fibrin. Diffusely the pleura is markedly expanded by oedema, haemorrhage, fibrin, large numbers of viable homogenous neutrophils, macrophages and fewer lymphocytes and plasma cells. (Marked, diffuse, chronic, active pyogranulomatous, necrotizing, bronchopneumonia and pleuritis with intralesional coccoid bacteria)

Microorganisms are not seen on PAS (no fungi or yeast) and Wade fite and Ziehl Neelsen stains (no acid-fast bacteria e.g. Mycobacterium sp. are

[redacted]

[redacted]

Tested on 13/08/25
Reported on 22/08/25 13:30
Referred on 13/08/25 **by:** [redacted]

Owner:
DOLPHIN COMMON

HENLEY BEACH 5022

Animal/s:
Marine Mammal

DOB: N/A

Collected: 13/08/25 07:00 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received

seen).

DIAGNOSIS
Right lung: Marked, diffuse, chronic, active, pyogranulomatous, necrotizing, bronchopneumonia and pleuritis with intralesional coccoid bacteria

COMMENTS
There is a bacterial bronchopneumonia and pleuritis in the right lung. This contributed to the death of the animal. Microbiological cultures, cetacean morbillivirus PCR and Mycobacterium sp. PCR are pending.

Mycobacterium sp.- like acid fast bacilli are not seen on Ziehl Neelsen stains.

As you have requested, only histology on the right lung is be done.

22/8/2025
MACROSCOPY
B: liver, heart, lung
C: kidney, spleen, adrenal gland
D: pancreas, adrenal gland, lymph node
E: stomach, ovary
F: uterus, colon, oesophagus
G: lymph node, brain (cerebellum)
Brain
H: medulla
I: occipital cortex
J-L: thalamus, hippocampus, parietal cortex
M-N: basal ganglia and frontal cortex

MICROSCOPY

Stomach: There is mild autolysis. Aside from this artefact there is a cross-section of a cetode within gastric glands. The cestode is approximately 40 micron in diameter with smooth tegument, spongy parenchyma and multiple basophilic calcareous corpuscles. (Gastric cestodiasis)

Pancreas: Multifocally the interstitium between acini lobules is expanded by fibrosis admixed with low numbers of lymphocytes and plasma cells.

Liver: Multifocally and randomly hepatic cords around portal areas, mid

[redacted]

[redacted]

Tested on 13/08/25
Reported on 22/08/25 13:30
Referred on 13/08/25 **by:**

[redacted]

Owner:
DOLPHIN COMMON

HENLEY BEACH 5022

Animal/s:
Marine Mammal

DOB: N/A

Collected: 13/08/25 07:00 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received

zonal areas and centrilobular zones are effaced and replaced by lytic necrosis (karyorrhectic debris) admixed with low to moderate numbers of lymphocytes, plasma cells, macrophages and rare neutrophils. (Mild, multifocal, subacute to chronic pyogranulomatous necrotising hepatitis)

Right lung: Diffusely alveolar spaces are expanded by oedema. Low numbers of alveolar spaces contain low numbers of lymphocytes plasma cells and neutrophils. Multifocally alveolar interstitium is expanded by low numbers of lymphocytes and plasma cells. (Mild, multifocal, subacute to chronic, bronchopneumonia and interstitial pneumonia with pulmonary oedema)

Spleen: Multifocally there increased numbers of macrophages surrounding sinusoidal vessels. Multifocally within the centre of lymphoid follicles there is karyorrhectic debris (lymphoid necrosis). (Mild, diffuse, subacute, histiocytic splenitis with lymphoid necrosis)

Those tissues not described are unremarkable.

DIAGNOSIS
Right lung: Streptococcus iniae bronchopneumonia and pleuritis

Stomach: Gastric cestodiasis

Pancreas: Moderate, multifocal, chronic lymphocytic, pancreatitis

Liver: Mild, multifocal, subacute to chronic pyogranulomatous necrotising hepatitis

Right lung: Mild, multifocal, subacute to chronic, bronchopneumonia and interstitial pneumonia with pulmonary oedema

Spleen: Mild, diffuse, subacute, histiocytic splenitis with lymphoid necrosis

COMMENTS
There is a Streptococcal bronchopneumonia and pleuritis in the right lung. This contributed to the death of the animal. Mycobacterium sp. PCR is negative. Mycobacterium sp.- like acid fast bacilli are not seen on Ziehl Neelsen stains. Cetacean morbillivirus testing is pending.

[redacted]

[redacted]

Tested on 13/08/25
Reported on 22/08/25 13:30
Referred on 13/08/25 **by:** [redacted]

Owner:
DOLPHIN COMMON

HENLEY BEACH 5022

Animal/s:
Marine Mammal

DOB: N/A

Collected: 13/08/25 07:00 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received

Streptococcus iniae is a known pathogen of marine mammals and marine fish. Predisposing factors for infection and disease due to Strep iniae in wild dolphins are not known.

The inflammation in the right lung is very minor.

The hepatitis splenitis with lymphoid necrosis are likely reflects bacteraemia and endotoxaemia from the bacteria in the right lung.

The cause for the chronic pancreatitis is not found. The animal was in moderate body condition. The pancreatitis did not apparent affect the condition of the animal.

The gastric cestode is an incidental finding. It cannot be speciated or the genera identified from the histological section. Tetraphillydea cestodes are reported in health dolphins.

All tissues are now reported for histopathology, as you requested.

[redacted]

Specialist Veterinary Anatomic Pathologist

[redacted]

[redacted]

[redacted]
Specialist Veterinary Anatomic Pathologist
[redacted]

Validated by [redacted].

Outlook

PATH RESULTS: DOLPHIN COMMON, (Ma) [redacted]

From [redacted]
Date Wed 20/08/2025 9:30 AM
To [redacted]

[redacted]

[redacted]

Tested on 13/08/25
Reported on 20/08/25 10:00
Referred on 13/08/25 **by:** [redacted]

Owner:
DOLPHIN COMMON

HENLEY BEACH 5022

Animal/s:
Marine Mammal

DOB: N/A

Collected: 13/08/25 07:00 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received

MICROBIOLOGY

SPECIMEN: Lung
ANIMAL ID:NO ID

MICROSCOPY
Numerous gram positive cocci. Numerous leucocytes.

CULTURE
1. Heavy growth of Streptococcus iniae

COMMENT: Anaerobes NOT isolated.
No Salmonella or Listeria spp. isolated.

This organism was identified using the MALDI-TOF at [redacted]

_____Final Report_____
19/08/25
Validated by [redacted] Laboratory Scientist.

Outlook

PATH RESULTS: DOLPHIN COMMON, (Ma) [redacted]

From [redacted]
Date Fri 22/08/2025 5:30 PM
To [redacted]

[redacted]

[redacted]

Tested on 13/08/25
Reported on 22/08/25 18:00
Referred on 13/08/25 **by:** [redacted]

Owner:
DOLPHIN COMMON

HENLEY BEACH 5022

Animal/s:
Marine Mammal

DOB: N/A

Collected: 13/08/25 07:00 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received

REFERRED TEST

Disease/Test : Mycobacterium avium complex Taqman Assay
Specimen Type: Lung x2

RESULT : Both samples Negative

Comment : NATA/RCPA accreditation does not cover the performance of this service

This test was performed by: Australian Centre for Disease Preparedness (CSIRO)
NATA accreditation number: 13546

Validated by [redacted] Laboratory Scientist.

REFERRED TEST

Disease/Test : Pan-Mycobacterium Taqman Assay
Specimen Type: Lung x2

RESULT : Both samples Negative

Comment : NATA/RCPA accreditation does not cover the performance of this service

This test was performed by: Australian Centre for Disease Preparedness (CSIRO)
NATA accreditation number: 13546

Validated by [redacted] Laboratory Scientist.

[redacted]

[redacted]

Tested on 13/08/25
Reported on 22/08/25 18:00
Referred on 13/08/25 **by:** [redacted]

Owner:
DOLPHIN COMMON

HENLEY BEACH 5022

Animal/s:
Marine Mammal

DOB: N/A

Collected: 13/08/25 07:00 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received

REFERRED TEST

Disease/Test : Mycobacterium tuberculosis complex IS6110 - TaqMan Assay
Specimen Type: Lung x2

RESULT : Both samples Negative

Comment : NATA/RCPA accreditation does not cover the performance of this service

This test was performed by: Australian Centre for Disease Preparedness (CSIRO)
NATA accreditation number: 13546

Validated by [redacted] Laboratory Scientist.

Outlook

PATH RESULTS: DOLPHIN COMMON, (Ma) [redacted]

From [redacted]
Date Tue 07/10/2025 10:30 AM
To [redacted]

[redacted]

[redacted]

Tested on 13/08/25
Reported on 07/10/25 11:00
Referred on 13/08/25 **by:** [redacted]

Owner:
DOLPHIN COMMON

HENLEY BEACH 5022

Animal/s:
Marine Mammal

DOB: N/A

Collected: 13/08/25 07:00 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received

REFERRED TEST

Disease/Test : Mycobacterium Isolation
Specimen Type: Lung x2

RESULT : Mycobacterium sp. was not isolated in both samples.

Comment : NATA accreditation does not cover the performance of this service. Cultures were incubated for 8 weeks.

This test was performed by: Australian Centre for Disease Preparedness (CSIRO)
NATA accreditation number: 13546

Validated by [redacted] Laboratory Scientist.

Outlook

PATH RESULTS: DOLPHIN COMMON, (Ma) [redacted]

From [redacted]
Date Fri 22/08/2025 3:30 PM
To [redacted]

[redacted]

[redacted]

Tested on 13/08/25
Reported on 22/08/25 16:00
Referred on 13/08/25 **by:** [redacted]

Owner:
DOLPHIN COMMON

HENLEY BEACH 5022

Animal/s:
Marine Mammal

DOB: N/A

Collected: 13/08/25 07:00 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received

MOLECULAR DIAGNOSTICS

INFLUENZA A RNA PCR (REAL TIME REVERSE TRANSCRIPTASE)

Specimen type: Oropharyngeal swab in VTM, tissues

SPECIMEN ID	Type A	H5	H7
KIDNEY	Not detected		
BRAIN	Not detected		

SPLEEN	Not detected
LUNG	Not detected
LIVER	Not detected
HEART	Not detected
SWAB	Not detected

Validated by [redacted] Laboratory Scientist.

Outlook

PATH RESULTS: DOLPHIN COMMON, (Ma) [redacted]

From [redacted]
Date Thu 28/08/2025 5:00 PM
To [redacted]

[redacted]

[redacted]

Tested on 13/08/25
Reported on 28/08/25 17:30
Referred on 13/08/25 **by:** [redacted]

Owner:
DOLPHIN COMMON

HENLEY BEACH 5022

Animal/s:
Marine Mammal

DOB: N/A

Collected: 13/08/25 07:00 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received

REFERRED TEST

Disease/Test : Cetacean Morbillivirus TaqMan PCR Assay
Specimen Type: Lung (Common Dolphin) Lung, Spleen, Heart, Kidney, Liver, Brain

RESULT : All 7 samples Negative

Comment : NATA/RCPA accreditation does not cover the performance of this service

This test was performed by: Australian Centre for Disease Preparedness (CSIRO)
NATA accreditation number: 13546

Validated by [redacted] Laboratory Scientist.

[redacted]

Tested on 13/08/25
Reported on 28/08/25 17:30
Referred on 13/08/25 **by:**

[redacted]

[redacted]

Owner:
DOLPHIN COMMON

HENLEY BEACH 5022

Animal/s:
Marine Mammal

DOB: N/A

Collected: 13/08/25 07:00 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received

MOLECULAR DIAGNOSTICS

Influenza Type A - TaqMan Assay

Species : Dolphin Number of specimens: 7
Specimen type : Tissue

SAMPLE ID	TEST RESULT
LUNG*	Negative
LUNG	Negative
SPLEEN	Negative
HEART	Negative
KIDNEY	Negative
LIVER	Negative
BRAIN	Negative

COMMENT: * Lung from Common Dolphin

Australian Centre for Disease Preparedness (CSIRO)
NATA accreditation number: 13546

Validated by [redacted] Laboratory Scientist.

Tasmanian Government

ANALYTICAL SERVICES TASMANIA

18 St Johns Avenue New Town 7008 TAS
03 6165 3300
enquiries@ast.tas.gov.au
www.analyticalservices.tas.gov.au

Submission Number: [redacted]
Report Number:
Issue Date: 28/08/2025
Status: Final

CERTIFICATE OF ANALYSIS

Customer: [redacted]
Address:
Contact:

Submission Description: [redacted] Common Dolphin - Henley Beach
Sample Received Date: 22/08/2025
Contract Number: [redacted]
Client Order Number:
Program/Quote Reference: [redacted] Brevitoxin, lipophilic toxin and paralytic shellfish toxins

Sample(s) analysed as received. Sampling date and time data supplied by the client. The document shall not be reproduced except in full.
Additional information relating to this submission can be found in the sample receipt notification.
This report supersedes any previous reports with this submission number.
Many tests specify a holding time which gives the recommended timeframe by which a sample should be preserved/extracted and/or analysed after the sample is taken.
Holding time information can be found on the AST website https://analyticalservices.tas.gov.au/our-services/containers-samples-and-submissions .
Whilst every effort is made to analyse samples within these timeframes, situations can occur where this is not possible.
Where a test has been conducted outside the recommended sample holding time this should be taken into account when interpreting results.

The results in this report were authorised by:

Name	*Position*
[redacted]	**Chemist**

Test Information:

Method ID	*Test Description*	*Date Commenced:*
3411	Lipophilic Toxins in Shellfish by LC-MS/MS	25-08-2025
3411A	Brevetoxins in Biota by LC-MS/MS	27-08-2025
3416	PST in Biota by LC-MS/MS (Boundy Method)	25-08-2025

Chemistry Test Results (Biota - Food)

		Sample Description	Liver	Spleen	Kidney	Heart	Lung	Brain
		Sampled Date/ Time	21/08/25 0:00	21/08/25 0:00	21/08/25 0:00	21/08/25 0:00	21/08/25 0:00	21/08/25 0:00
Method ID	Analyte	Units	338749	338750	338751	338752	338753	338754
	AZA1	mg/kg WMB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AZA2	mg/kg WMB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	AZA3	mg/kg WMB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Domoic Acid	mg/kg WMB	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	DTX1 Free	mg/kg WMB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	DTX1 Total	mg/kg WMB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	DTX2 Free	mg/kg WMB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	DTX2 Total	mg/kg WMB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3411	GYM	mg/kg WMB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Homo-YTX	mg/kg WMB	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	OA Free	mg/kg WMB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	OA Total	mg/kg WMB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	PnTx-G	mg/kg WMB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	PTX2	mg/kg WMB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	SPX1	mg/kg WMB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Total DST	OA eq. mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	YTX	mg/kg WMB	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3411A	Brevetoxin 2	mg/kg WMB	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	Brevetoxin 3	mg/kg WMB	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	C1	STX.2HCl eq. mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	C2	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	C3	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	C4	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
3416	dcGTX1	STX.2HCl eq. mg/kg	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*
	dcGTX2	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	dcGTX3	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	dcGTX4	STX.2HCl eq. mg/kg	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*
	dcNEO	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

* NATA accreditation does not cover this result

Chemistry Test Results (Biota - Food)

		Sample Description	Liver	Spleen	Kidney	Heart	Lung	Brain
		Sampled Date/ Time	21/08/25 0:00	21/08/25 0:00	21/08/25 0:00	21/08/25 0:00	21/08/25 0:00	21/08/25 0:00
Method ID	Analyte	Units	338749	338750	338751	338752	338753	338754
	dcSTX	STX.2HCl eq. mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	doSTX	STX.2HCl eq. mg/kg	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	GTX1	STX.2HCl eq. mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	GTX2	STX.2HCl eq. mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	GTX3	STX.2HCl eq. mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3416	GTX4	STX.2HCl eq. mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	GTX5	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	GTX6	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	NEO	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	STX	STX.2HCl eq. mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Total PST	STX.2HCl eq. mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

* NATA accreditation does not cover this result